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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/747,735 | 12/29/2003 | James William Rembert | 9400-66 | 6632 |
| 36072 | 7590 | 11/28/2008 | | |
| AT&T Legal Department | | | | |
| Attn: Patent Docketing | | | | |
| Room 2A-207 | | | | |
| One AT&T Way | | | | |
| Bedminster, NJ 07921 | | | | |
| EXAMINER | | | | |
| TSEGAYE, SABA | | | | |
| ART UNIT | | PAPER NUMBER | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/747,735

Applicant(s)

REMBERT ET AL.

Examiner

SABA TSEGAYE

Art Unit

2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/14/08 has been entered.
2. Claims 1-21 are pending. Currently no claims are in condition for allowance.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 15-21 are rejected under 35 U.S.C. 101 because the claimed medium is directed to propagation medium, i.e. signal, which is not statutory. Specifically, Page 5 [0018] "In the context of this document, a computer-usable or computer-readable medium may be any medium that can contain, store, communicate, propagate, or transport the program for use by or in connection with the instruction execution system, apparatus, or device."

[0019] "The computer-usable or computer-readable medium may be, for example but not limited to, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, device, or propagation medium."

All the underlined quotes clearly defined the medium to be signal.

Claim Rejections - 35 USC § 102

4. Claims 1, 2, 4-9 and 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Harel et al. (US 2004/0190548 A1).

Regarding claims 1 and 8, Harel discloses a method of operating a multiprotocol label switching (MPLS) network, comprising:

establishing a label switched path (LSP) that connects a first provider edge (PE) label switched router (LSR) a second PE LSR, and a customer edge (CE) LSR (page 2, 0017, lines 9-21);

encapsulating packet traffic that is associated with a plurality of different layer two technologies with a common MPLS label that identifies the LSP (see figs. 1 and 2; page 5, 0084); and

securely routing the encapsulated packet traffic from the first PE LSR through the second PE LSR to the CE LSR using the LSP (page 2, 0017).

Regarding claims 2 and 9, Harel discloses the method wherein the layer two technologies comprise asynchronous transfer mode (ATM) technology, frame relay technology, point-to-point protocol/high level data link control (HDLC) technology, private line time division multiplexing (TDM), and/or Ethernet technology (see fig. 2; claim 3).

Regarding claims 4 and 11, Harel discloses the method wherein the MPLS label is statically provisioned from the second PE LSR to the CE LSR and stitched to a signaled LSP in a service provider network that connects the first and second PE LSRs (encapsulated packets generated by modules 44, 46 and 48 are transmitted onto network 28 (MPLS) via multiplexer 50; and demultiplexer 56 receives encapsulated packet from network 28, and pass them to an

appropriate de-encapsulation module... demultiplexer may identify the types of the packet) (0097-0098).

Regarding claims 5 and 12, Harel discloses the method further comprising:
provisioning a pseudo wire virtual circuit within the LSP for each one of a plurality of attachment circuits at the first PE LSR (0017, lines 1-7).

Regarding claims 6 and 13, Harel discloses the method wherein the LSP and/or pseudo wires, which are terminated via signaling at the second PE LSR, transit on to the CE LSR (0017, lines 1-7).

Regarding claims 7 and 14, Harel discloses the method wherein each of the packets comprising the packet traffic comprises a control word that identifies one of the pluralities of different layer two technologies that the respective packet is associated with (page 2, 0017, lines 9-21).

Claim Rejections - 35 USC § 103

5. Claims 15, 16 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harel et al.

Harel discloses all the claim limitations as stated above. Further, Harel discloses that the ITDs comprise combinations of dedicated hardware switching and logic elements with software-driven microprocessors for control and computation functions. Harel does not expressly disclose a computer program product for operating the MPLS network.

However, it would have been obvious to one ordinary skill in the art at the time the invention was made to use software-based machines. The benefit using computer-readable device is that programs can be changed and upgraded and new features are added easily than hardware changes.

6. Claims 3, 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harel et al. in view of Chu et al. (US 2004/0059831 A1).

Harel discloses all the claim limitations as stated above, except for an internal service provider IP-virtual private network.

Chu teaches, in fig. 1 the second PE LSR (110) uses an internal service provider IP-virtual private network (0007; 0009; 0034; 0039-0041).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an IP-VPN, such as that suggested by Chu, in the system of Harel in order to secure a required bandwidth for each end user.

Response to Arguments

7. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 10/14/08 have been fully considered but they are not persuasive. Applicant argues (Remarks, pages 7-8) that Harel does not disclose or suggest "aggregating the packets associated with the packet source 32 and the packets associated with source 30 onto the same LSP." Examiner respectfully disagrees. As described at 0034, **encapsulating** (grouping together) the data includes **adding one or more labels** to the data for

transmission through a tunnel. As known, MPLS is used to ensure that all packets in a **particular flow** take **the same route** over a backbone. **Labels** are used to define **a flow of packets between two nodes**. Harel, further, discloses that “all packets in a given FEC are passed through the network over the same path by label switching routers (LSRs). Unlike IP routers, LSRs simply use **the packet label** as an index to a look-up table, which specifies the next hop on the path for each FEC and the label that LSR should attach to the packet (0015).”

Applicant, further, argues (Remarks, page 8) that the Final action still fails to provide and support for the assertion the Harel teaches using a single LSP to carry packet traffic associated with different layer two technologies...” Examiner respectfully disagrees. As pointed out above, Harel clearly discloses that packets from TDM source and packet form source 32 are encapsulated into **packets (encapsulating the data in one or more output packets)**, and transmits the encapsulated packet through a tunnel (via MPLS) see 0034. MPLS may have plurality of tunnels. However, each encapsulated packet is transmitted through a tunnel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SABA TSEGAYE whose telephone number is (571)272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Saba Tsegaye
Examiner
Art Unit 2419

/S. T./
Examiner, Art Unit 2419

/Wing F. Chan/
Supervisory Patent Examiner, Art Unit 2419
11/24/08